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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,248	01/28/2004	Hieu Van Tran	2102397-992820	4785
26379	7590	10/04/2006	EXAMINER	
DLA PIPER RUDNICK GRAY CARY US, LLP 2000 UNIVERSITY AVENUE E. PALO ALTO, CA 94303-2248			NGUYEN, KHAI M	
			ART UNIT	PAPER NUMBER
			2819	

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/767,248

Applicant(s)

TRAN ET AL.

Examiner

Khai M. Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-4 and 7-23 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 6 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Ochi et al. (US 3,988,689) or Ochi.

Regarding claims 1 & 24, Ochi discloses a multi-operational amplifier systems (Figs. 1-3 and 7), comprising:

a plurality of operational amplifiers (e.g., 10/24 of Fig. 1) each having an inverting input and a non-inverting input; and

a controller or configuration circuit (control block 30 of Fig. 1) configured to interconnect (or joint some of the inputs together by controlling the switches 22 & 28) the inputs of the operational amplifiers (10/24) by connecting (when switches 22/28 are at their lower positions) the inputs of pairs of the operational amplifiers and by disconnecting ones (i.e., the inputs - when switches 22/28 are at their upper positions) of the operational amplifiers, so as to form an adaptive input range of the system, wherein the controller (30) comprising metallization interconnects.

Regarding claim 2, Ochi discloses the multi-operational amplifier systems of claim 1, wherein the non-inverting input of the amplifier (10) is coupled to the inverting input of amplifier (24) (when switches 22/28 are at their lower positions).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 & 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ochi et al. (US 3,988,689) or Ochi in view of Tran (5,631,606). Ochi discloses a multi-operational amplifier systems (Figs. 1-3 and 7), comprising:

a first operational amplifier (10); a second operational amplifier (24); and a controller (30) configured to adaptively interconnect inputs of the first and second operational amplifiers (10 and 24) so that to form an adaptive input range of the system. Ochi also teaches the operational amplifiers can be formed of transistors including JFET, bipolar, and MOS transistors (Fig. 2 and col. 6, lines 15-18). Ochi does not disclose an NZ NMOS transistor. NZ NMOS or native transistors are known and can be used in an operational amplifier system (see Tran's abstract and Fig. 1B). Therefore, it would have been obvious to one person having ordinary skills in the art at the time the invention was made to utilize the NZ NMOS transistors as taught by Tran in forming an input of the operational amplifier system (10/24) for driving low impedance loads (col. 1, lines 6-8).

Allowable Subject Matter

3. The indicated allowability of claim 5-6 is withdrawn in view of the newly discovered reference(s) to Ochi et al. (US 3,988,689).

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4. Claims 3-4, and 7-23 are allowed. The following is a statement of reasons for the indication of allowable subject matter: the references of record neither reveal nor render obvious the recited combination including the relationship between the operational amplifiers and controller.

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khai M. Nguyen whose telephone number is 571-272-1809. The examiner can normally be reached on 9:00 - 5:30 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford (Rex) Barnie can be reached on 571-272-7492. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Khai M. Nguyen
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571-272-1809